

REMARKS

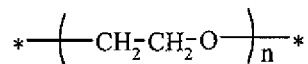
Claims 10-14 and 16-20 are pending. Claims 10-14 and 16-20 stand rejected. Claim has been amended to . Support for this amendment is found at p. , lines - of the PCT publication. Accordingly, no new matter is introduced with these amendments.

Reply to the Rejection of Claims 10-15, 17, 18 and 20 under 35 U.S.C. § 103(a)

Claims 10-15, 17, 18 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0071811 to Bhatt *et al.* ("Bhatt") in view of U.S. Patent No. 6,335,003 to Kim *et al.* ("Kim"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 10-15, 17, 18 and 20 as being unpatentable over Bhatt in view of Kim.

Bhatt is directed towards aerosol and non-aerosol hair spray compositions containing hydrophilic, carboxylated polyurethane resins (p. 2, ¶ 0016; p. 3, ¶ 0030). The carboxylated polyurethane resin is produced by the reaction of (a) a polyoxyalkylene diol; (b) an alkylene glycol; (c) a diisocyanate; (d) water in an amount of about 0.001% to about 0.95% of the combined weight of the reactants; and (e) a 2,2-di(hydroxymethyl)alkanoic acid, wherein the ratio of NCO (isocyanate) groups to OH (hydroxyl) groups in the water, diol, and glycol mixture is about 0.4 to about 1.1 (p. 2, ¶ 0023; p. 3, ¶¶ 0034 and 0035; claim 1). Bhatt teaches that an amine, such as diglycol amine, can be substituted for at least a portion of the water in the reaction mixture (p. 3, ¶ 0034; p. 4, ¶¶ 0036 and 0037; Polyurethane Resin W Example).

As previously indicated, Bhatt does not teach or suggest amphoteric urethane resins formed from the reaction products of a polyol, a polyisocyanate, a compound having active hydrogen(s) and carboxyl group(s), and a compound having active hydrogen(s) and tertiary amino group(s). More specifically, Bhatt does not teach or suggest the use of a polyol chosen from polyester polyol and/or polyether polyol. Further, Bhatt does not teach or suggest the use of a compound having active hydrogen(s) and tertiary amino group(s). Bhatt also does not teach or suggest amphoteric urethane resins having structural units derived from ethylene oxide, particularly those of the following formula –



wherein n is 20 to 120, as presently claimed.

Further, Bhatt does not teach or suggest cosmetic compositions that include both a water-soluble resin and an amphoteric urethane resin formed from the reaction products of a polyol, a polyisocyanate, a compound having active hydrogen(s) and carboxyl group(s), and a compound having active hydrogen(s) and tertiary amino group(s). More specifically, with reference to the presently claimed invention, Bhatt does not teach or suggest water soluble resins that improve the durability (see p. 26 of the present Specification) of a cosmetic composition, particularly in combination with an amphoteric resin.

Regarding the Examiner's remarks that Bhatt discloses "water-soluble polymers (anionic and nonionic surfactants, silicones, protein hydrosylates, ethylene adducts, and polyoxyethylene cholesterol)" (p. 3 of the present Communication), Applicants respectfully disagree. Water-soluble resins (or polymers) according to the present invention provide durability to the cosmetic composition, a function that the amphoteric polyurethanes are unable to provide. One skilled in the art understands that "anionic and nonionic surfactants, silicones, protein hydrosylates, ethylene adducts, and polyoxyethylene cholesterol" are NOT water soluble polymers, nor do they provide durability to a cosmetic composition. (Anionic or nonionic surfactants are NOT water soluble polymers, particularly with respect to the present invention.) Rather, the present specification teaches that such ingredients are simply other ingredients that may be found in a cosmetic composition (see, p. 18, lines 14-20 of WO 01/10397). These ingredients, together with an amphoteric polyurethanes would not solve the problem of providing a cosmetic composition that provides both touch and durability versus a cosmetic composition having only a water-soluble resin or an amphoteric urethane resin.

In this respect, Bhatt actually teaches away from the use of resins other than carboxylated polyurethane resins for providing durability to a hair spray composition (see, ¶¶ [0010] and [0015] of Bhatt, expressing the need for an alternative to nonionic, cationic and anionic polymers for use in hair setting and the disadvantages of such polymers). As such, one skilled in the art considering the teaching of Bhatt would not be motivated to use water-soluble resins together with amphoteric polyurethanes as one skilled in the art would be taught away from their use.

Kim teaches cosmetic compositions containing cationic polyurethanes and polyureas. Kim is relied upon by the Examiner for its teachings of polyurethane resins wherein diamines and tertiary amines are taught as interchangeable, and therefore one skilled in the art would be

motivated to substitute the diamines of Bhatt with the tertiary amines of Kim. Neither Bhatt nor Kim, alone or in combination, teach or suggest the presently claimed amphoteric urethane resins formed from the reaction products of a polyol, a polyisocyanate, a compound having active hydrogen(s) and carboxyl group(s), and a compound having active hydrogen(s) and tertiary amino group(s) and having structural units derived from ethylene oxide. Further, Kim makes no reference to the use of other water-soluble resins together with its cationic polyurethanes. Therefore, Kim adds nothing to Bhatt in this regard.

For at least all of the above reasons, neither Bhatt nor Kim, alone or in combination, teach or suggest the presently claimed composition, particularly the combination of the amphoteric resin having at least one carboxyl group and at least one tertiary amino group in one molecule and the water-soluble resin, and therefore cannot be said to render the present invention obvious.

It is believed that these remarks overcome the Examiner's rejection of claims 10-15, 17, 18 and 20 under 35 U.S.C. § 103(a). Withdrawal, therefore, of the rejection of these claims is respectfully requested.

Reply to the Rejection of Claims 11-13, 16 and 19 under 35 U.S.C. §103(a)

Claims 11-13, 16 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bhatt and Kim as applied to claims 10, 14, 15, 17, 18 and 20 above, and further in view of U.S. Patent No. 5,972,354 to de la Poterie *et al.* ("de la Poterie") and U.S. Patent No. 5,100,658 to Bolich *et al.* ("Bolich"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 11-13, 16 and 19 as being unpatentable over Bhatt and Kim as applied to claims 10, 14, 15, 17, 18 and 20 above, and further in view of de la Poterie and Bolich.

Bhatt and Kim were discussed previously, those arguments being incorporated herein. de la Poterie is cited by the Examiner for its teaching of polyurethane copolymers comprising at least one silicone-containing block (col. 3, lines 16-28). de la Poterie does not teach or suggest amphoteric urethane resins formed from the reaction products of a polyol, a polyisocyanate, a compound having active hydrogen(s) and carboxyl group(s), and a compound having active hydrogen(s) and tertiary amino group(s) and having structural units derived from ethylene oxide as presently claimed. Further, de la Poterie does not teach or suggest the use of water-soluble resins in combination with its polyurethane copolymers. For at least these reasons, de la Poterie

adds nothing to Bhatt and/or Kim. Even in combination, the references fail to teach the present invention.

Bolich is cited by the Examiner for teaching silicones in the form of resins as hair conditioners. Bolich does not teach or suggest amphoteric urethane resins formed from the reaction products of a polyol, a polyisocyanate, a compound having active hydrogen(s) and carboxyl group(s), and a compound having active hydrogen(s) and tertiary amino group(s) and having structural units derived from ethylene oxide as presently claimed. Further, Bolich does not teach or suggest water-soluble polymers for providing cosmetic compositions with improved durability. Instead, the polymers of Bolich serve in rheology modification, not durability. One skilled in the art would not consider the polymers of Bolich as functioning in improving durability. For at least these reasons, Bolich adds nothing to Bhatt and/or Kim.

It is believed that these remarks overcome the Examiner's rejection of claims 11-13, 16 and 19 under 35 U.S.C. § 103(a). Withdrawal, therefore, of the rejection of these claims is respectfully requested.

Based on the above amendments and remarks, allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Respectfully submitted,

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